

Synopsis of the **HORMINÆ** of North America.

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The Braconids belonging to this group are few in number, and very closely allied to the Doryctinæ, Rhyssalinæ and Rhogadinæ, but are readily separated from these groups by the subdiscoidal nervure being interstitial with the anal nervure. *Hormiopterus* Giraud comes very close to *Dendrosoter* Wesmæl; *Chremylus*, with wings removed, resembles *Pambolus* Haliday, while *Hormius* Nees comes closest to *Rhyssalus* Haliday.

Table of Genera.

Median cell much shorter than the submedian cell along the externo-medial nervure.

Antennæ at the most 12-jointed..... **Chremylus** Haliday.
Median and submedian cells of an equal length.

Antennæ multiarticulate from 17- to 36-jointed.

Recurrent nervure not interstitial with the first transverse cubital, but joining an angle in the second submarginal cell..... **Hormius** Nees.

Recurrent nervure interstitial with the first transverse cubital.

Hormiopterus Giraud.

CHREMYLUS Haliday.

In Europe but a single species is known, *C. rubiginosus* Boh., recorded by Marshall as having been reared from *Bruchus rufimanus* Boh., *B. seminarius* Linn. and *B. granarius* Sch.; also from *Tinea pellionella* Linn. In our fauna I have recognized two species distinguished as follows:

FEMALES.

Head, mesoscutum, scutellum and basal and apical abdominal segments black.

First branch of cubitus rather strongly curved inwardly.

C. terminalis sp. n.

Head black, rest of body rufo-piceous.

First branch of cubitus almost straight..... **C. nigriceps** sp. n.

MALES.

Head and thorax black; abdomen rufous..... **C. nigriceps** sp. n.

1. **Chremylus terminalis** sp. n.

♀.—Length 18 mm. Head, mesoscutum and basal and apical abdominal segment black, rest of body dull ferruginous; antennæ, mandibles, tegulæ and legs,

including coxæ, pale ferruginous; palpi pale. Head rugulose, the face with some long white hairs; thorax faintly shagreened, with three punctate impressed lines, the laterals uniting with the median before attaining the base of the scutellum; scutellum polished, with a crenate furrow across the base; mesopleura smooth, or nearly so; polished, shagreened at the sutures, and with a slight longitudinal crenate furrow near the middle; metathorax finely rugose, distinctly areolated, with the angles subprominent. Wings hyaline, pubescent, the stigma large, fuscous, all the nervures pale or hyaline; the first abscissa of radius two thirds the length of the second; first branch of cubitus rather strongly curved inwardly; recurrent nervure short, scarcely half the length of the first transverse cubital nervure and interstitial with it. Abdomen broadly oval, wider than the thorax, 3-segmented, shagreened, smoother towards apex, the second segment the largest and broadest, the first and last about equal in length, blackish; the raised discal plate on the first about twice as long as wide, the sides parallel; ovipositor half the length of abdomen.

Hab.—St. Louis, Mo. (C. V. Riley).

Type in National Museum.

Allied to the European *C. rubiginosus*, but slightly smaller and differently colored, while the first abscissa of radius and the raised plate on first abdominal segment are longer proportionately.

2. *Chremylus nigriceps* n. sp.

♀.—Length 1.5 mm. Head black; thorax and abdomen rufo-piceous; antennæ, except the four terminal joints (which are black) and legs, honey-yellow; collar and tegulæ yellowish. Head transverse, rugulose, the face slightly convexly prominent; antennæ as long as the head and thorax, filiform, 12-jointed, the first flagellar joint very slightly the longest, the following about two and a half times as long as thick; thorax with distinct parapsidal furrows that converge and meet just before reaching the base of scutellum, the middle lobe with a median longitudinal furrow; the surface, except anteriorly, where it is finely alutaceous, is smooth and shining; scutellum polished, with a large crenate fovea across the base; metathorax finely rugulose, areolated, truncate behind, the angles somewhat acute. Wings hyaline, the stigma and costa brown, the internal nervures yellowish or pale; recurrent nervure interstitial with the first transverse cubital, the first abscissa of radius a little longer than half the length of the second. Abdomen oval, 3-segmented, not longer than the thorax, polished, shining, but with a strong lens exhibiting an alutaceous sculpture towards base; plate of first segment a little longer than wide, with raised lateral margins; second segment nearly as long as the first and third united; ovipositor scarcely one-third the length of abdomen.

The ♂ has the head and thorax entirely black, but otherwise agrees with the female.

Hab.—Jacksonville, Fla.

Types in coll. Ashmead.

HORMIUS Nees.

The type of this genus, *H. moniliatus* Nees, was reared from *Tortrix corylana* Fab. The only other species, *H. pectiventr*is Wesm.,

known to the European fauna, Marshall believes to be a variety of the former.

Our species may be tabulated as follows :

Honey-yellow species.....2.
Head and thorax black.

Metathorax rugose, but more or less distinctly areolated.

Legs, except hind femora, which are black or fuscous, rufous ; abdomen, except first segment, rufo-piceous : antennæ black, or brown-black, multiarticulated, ♀**H. americanus** Ashm.

Legs, including coxæ, pale ferruginous, or brownish yellow ; abdomen, except first segment, ferruginous ; antennæ 30-jointed, towards base pale, ♂**H. erythrogaster** sp. n.

Metathorax finely rugulose, not areolated.

Legs and collar pale honey-yellow ; abdomen brownish piceous, pale yellowish at base beneath ; ovipositor a little longer than half the length of abdomen, black ; antennæ, except first two joints, black ; 19-jointed, ♀**H. pallidipes** sp. n.

2.—Head, except the clypeus and mandibles, black.

Antennæ, except first two joints, black ; 18-19-jointed, ♂ ♀.

H. atriceps sp. n.

Antennæ pale, 20-jointed, ♂ ♀.

Mesothoracic lobes, the middle at base and the laterals toward outer margin, scutellum at sides, metathorax and shield of first abdominal segment dusky ; ovipositor one-fourth the length of abdomen.

H. vulgaris sp. n.

1. **Hormius americanus** Ashm., Bull. No. 1, Col. Biol. Asso. 1890, p. 16.

♀.—Length 2.6 mm. ; ovip. 0.4 mm. Black ; tegulæ and legs, except the femora, rufous ; the femora obfuscated, the posterior pair almost black ; abdomen rufous. Head and thorax, except the middle lobe posteriorly, smooth and shining ; middle lobe posteriorly just in front of scutellum wrinkled or rugose ; mesopleura polished with a smooth, longitudinal furrow at base ; scutellum smooth, with two large, shallow, crenate foveæ at base ; metathorax rugulose, indistinctly areolated ; antennæ long, black, multiarticulated (broken at tips), the joints of flagellum a little more than thrice as long as thick. Wings hyaline, strongly iridescent, the stigma and venation brown, the second submarginal cell twice as long along its lower side as along its upper side, the first abscissa of radius a little shorter than the second transverse cubital. Abdomen rufous alutaceous, the plate of the first segment sculptured and with parallel raised lateral margins.

Hab.—West Cliff, Col.

Type in coll. Ashmead.

The single specimen of this species was taken by Mr. T. D. A. Cockerell.

2. **Hormius erythrogaster** sp. n.

♂.—Length 2.8 mm. Head, thorax and first abdominal segment, except the lateral membranous parts, black ; palpi whitish ; mandibles ferruginous ; an-

tennæ brown-black, the three or four basal joints pale or yellowish, especially beneath. Legs honey-yellow, the tarsi faintly dusky. Abdomen rufo-piceous or ferruginous, varying somewhat in depth of coloring. Head and thorax smooth, polished; face below antennæ faintly punctate; metathorax rugulose, with only a trace of a long central area; antennæ long and slender, much longer than the body, tapering toward tips, 30-jointed, the first flagellar joint the longest, the others shorter and slightly gibbous at the middle, giving them a cord-like appearance; thorax with two furrows that converge and meet before the scutellum, the middle lobe with a delicate grooved line on its basal half; scutellum smooth, with a large crenate fovea at base; metathorax rugulose, with medial carinæ. Wings hyaline, the stigma and venation light brown, the recurrent nervure joining an angle in the second submarginal cell, the first abscissa of radius about as long as the second. Abdomen long-oval, shining, but with the surface finely, minutely wrinkled, the second segment very much longer than any of the others, about as long as the third, fourth and fifth united, with an oblique grooved line at each basal angle.

Hab.—Cedar Point, Md., and District of Columbia.

Types in coll. Ashmead.

Comes closest to the European *H. moniliata* Nees.

3. *Hormius pallidipes* sp. n.

♀.—Length 1.8 mm. Head, antennæ, except two basal joints, and thorax, except collar and metapleura, black; collar and legs pale honey-yellow, the anterior and middle legs nearly white, the hind tarsi fuscous; metapleura rufo-piceous; abdomen brownish piceous, the ovipositor a little longer than half its length. Head and thorax polished, impunctured, the latter with distinct parapsidal furrows; metathorax finely rugulose, nearly smooth at base without areas; antennæ 19-jointed, one-fourth longer than the body. Wings hyaline, the stigma and venation light brown, the first abscissa of radius slightly longer than the second.

Hab.—Cedar Point, Md.

Type in coll. Ashmead.

The single specimen in my possession was kindly given me by my friend, Mr. E. A. Schwarz, who captured it Aug. 23, 1890.

At first sight I was inclined to believe this species the opposite sex of *H. erythrogaster*, also captured at Cedar Point, but its much smaller size, different colored legs, sculpture of metathorax and the paucity of joints in antennæ readily separate it.

4. *H. atriceps* sp. n.

♂ ♀.—Length 1.6—1.8 mm. Head, except clypeus and mandibles, black; rest of body honey-yellow; antennæ brown, the two basal joints and legs, except tibiae and tarsi, yellowish white; all tibiae and tarsi fuscous or dusky. Antennæ 18—19-jointed, longer than the body, the first flagellar joint the longest, the following joints from three to three and a half times as long as thick; thorax smooth, polished, with delicate parapsidal furrows, the metathorax feebly punctate, areolated, the central carina quite distinct. Wings grayish hyaline, the

stigma and venation light brownish yellow, the first abscissa of radius about two-thirds the length of the second. Abdomen oblong-oval, the surface finely wrinkled but shining; ovipositor less than half the length of abdomen.

Hab.—Jacksonville, Fla.

Types in coll. Ashmead.

Taken by sweeping.

5. **H. vulgaris** sp. n.

♂ ♀.—Length 1.5–2 mm. Honey-yellow, with usually some obscure or fuscous markings; antennæ brown, much longer than the body, 20-jointed in both sexes, the joints after the third about four times as long as thick; mesothoracic lobes (the middle at base and the laterals towards base), metanotum and plate of first abdominal segment more or less brownish or fuscous. Legs pale honey-yellow, the terminal joint alone dusky. Wings hyaline, the stigma and venation light brown or yellowish, the first abscissa of radius being two-thirds the length of the second. Abdomen elongate-oval, fully as long as the head and thorax united, shining, but with a faint alutaceous sculpture; ovipositor only one-fourth the length of abdomen.

Hab.—Jacksonville, Fla.

Types in coll. Ashmead.

Common in April. Allied to *H. atriceps*, but of a more elongate shape, and otherwise separated by the color of head and the number of joints in the antennæ.

HORMIOPTERUS Giraud.

The type of this genus is from Algiers, and was reared from a lepidopterous larva, *Ecocceis* sp., producing a gall on *Limoniastrum guyanianum*.

Two species have been recognized in our fauna as follows:

Entirely black; anterior wings with a distinct white band,

Hind coxæ and femora black; ovipositor two-thirds the length of abdomen.

H. fasciatus sp. n.

Dark fuscous; head, markings on thorax and usually the base and apex of abdomen ferruginous; wings subfuliginous, with some whitish streaks, but without a distinct white band.

All legs dull ferruginous; ovipositor half the length of abdomen.

H. aciculatus Cr.

1. **Hormiopterus fasciatus** sp. n.

♀.—Length 4 mm.; ovipositor nearly 2 mm. Black; face below antennæ and the mandibles, except teeth, dull ferruginous; antennæ, basally, ferruginous; hind coxæ and femora black; basal one-third of anterior wings, a transverse band across from the base of stigma and a spot in marginal cell at tip of stigma, white; otherwise smoky. Middle lobe of mesoscutum with a longitudinal carina posteriorly just in front of the scutellum; two crenate foveæ at base of

scutellum; mesopleura smooth; metanotum and abdomen, except apex of second and third segments, longitudinally striated; ovipositor a little shorter than abdomen.

Hab.—Manhattan, Kan.

Type in coll. Ashmead.

Described from a single specimen received, some years ago, from Mr. C. L. Marlatt.

Differs from *H. aciculatus* Cr. in color of body and wings, length of the ovipositor, in having smooth mesopleura, and in the striæ of the metanotum and abdomen being finer.

2. ***Hormiöpterus aciculatus*** Cresson.

Hormius? *aciculatus* Cr., Trans. Am. Ent. Soc. vol. iv (1872), p. 190.

♀.—Length 5 mm.; ovip. 1.5 mm. "Fuscous, more or less tinged with dull ferruginous; head ferruginous, with white pubescence, not full behind the eyes, vertex [anteriorly] depressed; antennæ [longer than body], pale at base, dusty at tips; thorax fusco-ferruginous; pleura, metathorax and abdomen covered with dense longitudinal striæ; mesothoracic lobes smooth, the sutures rugose; tegulæ honey-yellow; wings narrow, subhyaline, apical half varied with pale fuliginous; a streak at tip of stigma, an oblique streak in first cubital cell, a spot at base of second cubital cell and a short transverse line at its apex, hyaline; stigma black, whitish at base and apex; legs ferruginous, with sparse erect hairs; abdomen blackish fuscous, tinged with reddish at base [and usually at tip], clothed with short erect whitish hairs; sutures deeply incised, the second segment with a deep transverse line a little behind the middle; ovipositor about half the length of abdomen."

Hab.—Texas (Belfrage); Jacksonville, Fla. (Ashmead).

Type in National Museum, obtained with the Belfrage collection.

Several specimens of this species, agreeing in every particular with the type, I obtained in Florida, under oak bark in March.

